SINGLE-ENDED DIFFERENTIAL CIRCUIT USING COMPLEMENTARY DEVICES

ABSTRACT OF THE DISCLOSURE

The present invention relates to circuits having differential structure which uses complementary devices for processing single-ended signal. The single-ended differential circuit in accordance with the present invention, comprises first and second complementary devices having first, second, and third terminals, respectively, wherein current flowing from the second terminal to the third terminal has its quantity and direction being varying in dependant on the voltage driven to the first terminal, wherein the currents flowing through the first and second complementary devices vary in opposite relationship. The single-ended differential circuit further comprises an input terminal for driving the first terminals of the first and second complementary devices with a control signal; and biasing means connected to the second and third terminals of the first and second devices, for determining biasing points of the first and second complementary devices such that the first and second devices operates in a differential relationship with respect to a signal driven to the input terminal, wherein the biasing means determining the biasing points such that one of the first and second devices is substantially active.